7.—Additions to the Bombyliid Fauna of South Africa (Diptera), as represented in the South African Museum.—By Prof. M. Bezzi.

The Director of the South African Museum has sent me a small number of Bombyliidae from South-West Africa, obtained after the publication, on February 21st, 1921, of my memoir. These are now described. I have also added a few others, sent me by Dr. H. Brauns, that do not figure in my first list. Some of these will be more fully described in my forthcoming paper on the African Bombyliidae belonging to the Hungarian Museum at Budapest.

BOMBYLIIDAE.

BOMBYLIUS, Linn.

Bombylius plagiatus, n. sp.

Closely allied to *B. acroleucus*, Bezzi, and belonging to the same group, but at once distinguishable by the more slender third antennal joint and by the wings having the discal cross-vein placed much beyond the middle of the discoidal cell, and having moreover a broad fuscous patch ending in a truncate form at the discal cross-vein.

Type ♀, one specimen from Delarey (W. Transvaal), January, 1917 (Dr. H. Brauns).

Length of body 9 mm.; of wing 10 mm.

Head and appendages exactly as in B. acroleucus; the third joint of the antennae is distinctly more slender at its broadest portion and not broader than the second joint. Thorax as in B. acroleucus, likewise with three equal longitudinal stripes of black hairs on the back; bristles entirely black. Scutellum, halteres and squamae as in B. acroleucus; abdomen of a like pattern, consisting of two broad round white spots on the sides of second and third segment and a smaller one in the middle; the terminal segments have the median spots more developed, being thus almost entirely white; the terminal bristles are black at base and white at end. Legs as in B. acroleucus; the wings have the same nervation, but are longer, and therefore the discoidal cell is elongate and the second and third posterior cells shorter; the discal cross-vein is placed on the terminal third of the discoidal cell. There is, moreover, a well-developed pattern, the extreme base to the basal cross-veins being black as in B. acroleucus; following is a yellowish patch extending from the costa to the whole of the second basal cell and filling up the whole of the costal cells; then a broad

fuscous patch of rectangular shape, extending from the face of the second longitudinal vein to the discal cross-vein and ending there in a straight line; this fuscous patch extends below a little into the upper part of the discoidal cell and into the apical part of the second basal cell and also along the fifth longitudinal vein.

SOSIOMYA, Bezzi.

Ann. S. Afr. Mus., 8, 1921, p. 67.

ADELIDEA (SOBARUS) AND SOSIOMYIA.

It seems that the species of this peculiar South African group are more numerous than was at present believed. There can be no doubt that Adelidea fuscipennis, Macquart, is the same insect as Sobarus anomalus, Wiedemann and Loew, and even as Cyllenia longirostris, Wiedemann; all three are one species. I have seen, however, two other species which are certainly different, and therefore I will give the following key for all the known species.

1 (2). Third antennal joint beset with long bristles above; antennae entirely black; femora black; tibiae with partly black spicules; wings with a rounded fuscons spot at end of the anal cell . comata, Bezzi, 1921.

ADELIDEA, Macq.

Bezzi, loc. cit., p. 3.

- 2 (1). Third antennal joint quite bare above; legs entirely reddish with quite reddish spicules; no fuscous spot at end of anal cell.
- 3 (4). Basal joints of the antennae red; wings with the anterior half yellowish and with fuseous spots on cross-veins . . . ruficornis, n. sp.
- 4 (3). Antennae entirely black; wings with the anterior half infuscated or entirely fuscous.
- 5 (6). Wings with the anterior half infuscated and with fuscous spots on cross-veins; discoidal cell much longer than the second posterior cell. anomala, Wied.*
- 6 (5). Wings equally and intensively infuscated, not spotted; discoidal cell only a little longer than the second posterior cell braunsi, n. sp.

Adelidea ruficornis, n. sp.

Closely allied to A. anomala and possibly the unknown female of this species, but distinguished by the red basal joints of the antennae and by the not infuscated fore half of wings.

* Of this species I have seen only a rather old male specimen in the British Museum.

One female specimen from Willowmore (Cape), November, 1920 (Dr. H. Brauns).

Q. Length of body and wing 8 mm.

Head vellowish, clothed with grevish tomentum, which is darker on the occiput; ocellar tubercle blackish; from about as broad as one eye, clothed with short pale yellowish hairs, and having 4-5 long yellowish bristles on each side; face with short whitish hairs, and with a long mystax of yellowish, bristle-like hairs at mouth border; peristome narrow and whitish; beard white; upper occipital hairs vellowish. Antennae with the 2 basal joints red; the first joint is slender and long, about three times as long as the second joint, clothed above with short and below with long yellowish hairs; third joint black, slender, more slender than the first, as long as the 2 first joints together, with a short, hair-like terminal style. Palpi blackish, short; proboscis black, 4 mm. long. Thorax black, clothed with golden tomentum on the back, and with whitish tomentum on the pleurae; humeri and notapleural region reddish; a short stripe of white hairs on the sides above the root of the wings; lateral bristles long, strong, rather numerous, of a reddish colour, but the postalar ones are in part blackish; mesopleura with long white hairs and with a row of yellowish bristles at the hind border; sternopleura with short white hairs; metapleura bare. Scutellum entirely black, clothed with golden tomentum, and having 2-3 rows of long blackish bristles at the hind border. Squamae and halteres whitish, the former with white fringe. Abdomen black, densely clothed with golden tomentum, the last segments reddish at hind border; the hairs are short, scarce and yellowish, but all the segments except the first have a row of erect blackish bristles at the hind border. Venter reddish, clothed with whitish tomentum and white hairs, which are denser towards the sides, forming a white longitudinal stripe on each side. Legs quite reddish, the last tarsal joint only black at end; coxae white tomentose, and white pilose; all the bristles of the femora and the spicules of tibiae are reddish or vellowish, the hind femora having a row of 4-5 below near the end, and another row of 2-3 on the outer side at end. Claws black and thin, little curved; pulvilli whitish and shorter than the claws. Wings vellowish at base and on middle of fore border, grey on the remainder; the dark spots are on the praefurca, on the discal cross-vein (the largest of all), on base of cubital fork and on the apical cross-vein of the second basal cell; 2 less developed spots are on the apical cross-vein of the discoidal cell and on the external inner angle of the third posterior cell; there is no trace of fuscous spot at end of the anal cell. Venation as in A. anomala, with the discoidal cell much longer than the second posterior cell; discal crossvein on the last third of the discoidal cell; first posterior cell narrowed at end, about as broad as the anal cell at end. Basal hook yellowish; basal comb small and clothed with yellowish hairs; alula rounded, yellowish, not fringed. Veins reddish at base, blackened at end.

ADELIDEA BRAUNSI, n. sp.

A small species, at once distinguished by the equally infuscated, not spotted wings, which have, moreover, a short discoidal cell.

Two ♀ specimens from Willowmore (Cape), April, 1920 (collected by Dr. H. Brauns, in whose honour the species is named).

The present species cannot be the A. fuscipennis of Macquart as one may conclude from the name, the wings being described as yellowish at base and dark spotted.

Q. Length of body 4-4.5 mm.; of wing 5-6 mm. Head black, densely clothed with dark grey dust; occiput with dense yellowish hairs; from broader than one eye, with short black bristles on the sides. Antennae quite black, the first joint with scarce black hairs; third joint as long as the 2 first joints together, with a short black terminal style. Face rounded, convex, blackish brown, with short blackish hairs at sides and at mouth border. Palpi black, long; proboscis black, 3-3.5 mm. long; beard scarce and yellowish. Thorax entirely black, with reddish humeri; on the back it is clothed with yellowish tomentum, and has numerous yellowish bristles at sides, the supraalar ones being darker; on the pleurae the tomentum is more grey, and there are yellowish hairs only on the meso- and sternopleura, the rest being bare. Squamae blackish, with scarce vellowish fringe; halteres whitish. Scutellum entirely black and rather shiny, clothed, like the back of the mesonotum, with several rows of blackish bristles at hind border. Abdomen entirely black, rather shiny and yellowish tomentose; first segment with dense white hairs at sides; a row of blackish thin bristles at hind border of the segments. Venter entirely black, yellowish tomentose, clothed with dark hairs. Legs reddish, with black coxae and black tarsi except at base; the femora are blackened near the base; all the bristles and spicules reddish or vellowish; hind femora below without bristles, but with a row of 5-6 at the outer side near the end. Claws reddish, with black tips; pulvilli short, yellowish. Wings equally and rather intensely infuscated, almost blackish, without darker spots on cross-veins, but with a broad whitish praediscoidal spot, which is very striking against the infuscation. Basal comb not distinct, alula rounded, blackish, without fringe. Venation as in two preceding species, but the first posterior

cell not narrowed at end, the discal cross-vein placed near the middle of the discoidal cell, this last cell not much longer than the second posterior cell, anal cell very broadly open. All the veins are black, except the first, which is yellowish.*

USIINAE.

CORSOMYZA, Wied.

Corsomyza simplex, Wiedemann, 1820.

A couple of specimens from Willowmore (Cape), September, 1920, Dr. H. Brauns. The female greatly resembles my Megapalpus fulviceps and may even be the same.

HYPERUSIA, Bezzi.

Hyperusia minor, Bezzi.

Ann. S. Afr. Mus., xviii, p. 84.

In the male specimen the anal cell is closed and shortly stalked, while in the female the same cell is broadly open. This makes the distinction of *H. soror*, Bezzi, 1921, very doubtful. Mafa (Ovambo Land), February, 1921 (K. H. Barnard).

PHTHIRIINAE.

GONARTHRUS, Bezzi.

Ann. S. Afr. Mus., xviii, p. 88.

Gonarthrus chioneus, Bezzi.

One specimen from Willowmore (Cape), Dr. H. Brauns.

Note.—In my paper, loc cit., p. 4, in the key of genera the name Pseudoamictus, Big., is used, while on p. 94 I employed the name Pseudempis. The two names are synonyms, and that of Bigot must be used because it is a valid one (even if not described), its type-species having been indicated.

* The above described species have nothing to do with the recently erected genus Conophorina, Becker, 'Entom. Mitteil.,' ix, 1920, pp. 181–184, figs. 1–3, the type species of which, C. bicellaris, Becker, was likewise collected near Willowmore (Cape), by Dr. H. Brauns; it has an incrassated first antennal joint and only 2 submarginal cells on the wings.

TOMOMYZA, Wied.

Tomomyza pictipennis, Bezzi, n. sp.

A very distinct species, resembling a small specimen of *Henica*, but belonging to the gen. *Tomomyza* in its true sense, as indicated in my key of the genera ('Ann. S. Afr. Mus.,' xviii, p. 5). The Mediterranean species, attributed wrongly to the present genus, must be removed to *Stomylomyia*, Big., and belongs to the *Lomatiinae*.

Several specimens from Willowmore (Cape), December and January, Dr. H. Brauns; the species will be more fully described in my paper on the Bombyliidae of the Hungarian Museum.

CYLLENIINAE.

PANTOSTOMUS, n. gen.

Pantostomus gibbiventris, Bezzi, n. sp.

A species very distinct on account of its gibbose abdominal segments. Some specimens from Willowmore (Cape), December and January, Dr. H. Brauns. The new gen. Pautostomus of the Cylleninae agrees with Tomomyza in the absence of ocelli, in the hairy metapleura and in other characters; but it is at once distinguished by the face being practically wanting, the mouth-opening extending to the base of the antennae. Both the new genus and the new species will be fully described in my forthcoming paper on the Hungarian Museum material.

EXOPROSOPINAE.

THYRIDANTHRAX, O. Sack.

THYRIDANTHRAX LUTULENTUS, n. sp.

Near *T. leucoproctus*, but distinguished by the greater size, the dense tufts of yellow hairs on the sides of thorax and by the more yellowish base of the wings.

Type ♀, a single specimen from S.W. Protectorate, Otjiverongo, April, 1921 (J. S. Brown).

Q. Length of body 11 mm.; of wing 10 mm. Head? entirely black; occiput with white scales at eye border, chiefly near the indentation. From clothed with short black hairs, more densely on the anterior half. Face bluntly convex, not much, yet distinctly prominent, with black hairs at mouth border and with yellowish ones at sides. Antennae quite black, with the third joint elongate conical.

Proboscis black, not projecting beyond the mouth. Thorax entirely black, clothed on the back with shining scales, which in certain lights are whitish, and seems to be disposed in front on three broad longitudinal stripes; the collar and the sides along the notopleural line bear long and dense tufts of golden-yellow hairs; pleurae black, with like tufts on pro-, meso- and metapleura. Scutellum black, clothed, like the back of mesonotum, with black bristles at hind Squamae brown, with white fringe; halteres whitish. Abdomen entirely black; the hairs of sides are white at base and black on the remainder; the third segment has a broad, complete, transverse band of white scales at the base, and similar bands are to be seen on the sixth and seventh segment, the remainder being clothed with black scales. Venter black; spines of the ovipositor reddish brown. Legs black, with smooth front tibiae: front tarsi with short thin hairs; hind femora with a complete row of bristles below; spicules of the 4 posterior tibiae black and long; hairs of coxae black like all the others; claws simple; no pulvilli. Wings proportionately long and broad; they are hyaline, iridescent, with vellowish base and with a faint but distinct vellowish tint along the costal cells and into the basal cells. The veins are yellow, blackened to the terminal half, but the costa is entirely black. Basal hook slender, long, curved, black; basal comb golden, with black bristles at border. Second longitudinal vein originating opposite to the discal cross-vein, with broad and flat loop at end; upper branch of the cubital fork much retreating at base; discal cross-vein placed before the middle of the discoidal cell; first posterior cell long and narrow and slightly but distinctly narrowed at end; second posterior cell at end three times broader than the preceding one and as broad as the following; fourth posterior cell as broad as the two preceding cells taken together, its basal contact with the discoidal cell short, being only a quarter of that of the preceding cell with the same cell; anal cell broadly open. Alula rounded, yellowish, with white fringe; axillary lobe broad, hyaline iridescent.

LITORRHYNCHUS, Macq.

LITORRHYNCHUS DILATATUS, Bezzi (1921).

Very like a small specimen of *L. maurus* and likewise with black and black-fringed squamae, but belonging to the section of the genus in which the second posterior cell at end is not or only a little more narrow than the third, the vein between them being less twisted.

One \circ specimen from S.W. Protectorate, Otjiverongo, April, 1921 (J. S. Brown).

The species was described from Central Africa, but seems to be widely spread. In the present specimen the central hyaline spot of the discoidal cell is rather broad, and the anal cell is narrowly hyaline at end.

EXOPROSOPA, Macq.

EXOPROSOPA (EXOPROSOPA) ACRODISCOIDES, n. sp.

A species of the *seniculus* group, near *morosa* and *ignava*, but distinct from both on account of the more lightly coloured body and wings, and of the quite whitish metapleural tuft.

Type Q from Nomtele (Ovamboland), February, 1921, and a badly preserved male from Mafa (Ovamboland), February, 1921 (K. H. Barnard).

3, ♀. Length of body 12-15 mm.; of wing 13-16 mm; spread Occiput black, whitish tomentose at border of eyes. From of the male only a little more broad than that of the female; it is black on distal half and red on anterior half above the antennae, but more broadly in the female than in the male. The face is likewise more broadly red in the female with a black median spot, while in the male it is black with a red spot on each side. From with black hairs on distal half and with yellowish tomentum in front, like the face, which has whitish hairs on the sides and is of conical shape; mouth borders pale yellowish. The basal joints of the antennae are reddish below and black above, and are darker in the male; third joint wanting in case of types. Proboscis black, not projecting. Thorax black, clothed with vellowish scaly tomentum on the back, and with tufts of whitish hairs on the sides; bristles black; pleurae reddish, black spotted, with whitish hairs even on the metapleurae. Scutellum reddish, with a narrow black base, clothed, like the back of the mesonotum, with black bristles at hind border. Squamae brown with whitish fringe; Abdomen black, with reddish sides and hind halteres yellowish. border of segments, in the male almost red, with black spots at base of each segment; the hairs of sides are white near the base, yellowish on the rest with a few black ones; it is clothed above with yellowish scales like those of the back of thorax, but at the base of the second segment and, as it seems, on the second to third terminal segments, there are transverse bands of whitish scales. Venter red, unspotted in the male, with broad black bands in the female, both with whitish tomentum. Spines of the ovipositor reddish. Legs black, but with a reddishvellow appearance on account of the dense vestiture of scales; spines and spicules black; front tibiae long and smooth; front tarsi shiny

pilose; claws with long and acute basal tooth. Wings whitish hyaline; the fuscous pattern is faintly developed, but ends distinctly in a truncate form into the marginal cell opposite to the marginal cross-vein; the basal and the discoidal cell are less infuscated, and therefore there is a fuscous patch at the end of the discoidal cell which seems sometimes to be isolated as in the species of the *E. heros*-group. First posterior cell narrowed at end, being only a little broader than the anal cell at end; the terminal cross-vein of the discoidal cell is horizontal and somewhat S-shaped; moreover, the discoidal cell has a projection into the third posterior cell of a rather angular shape and appendiculate as in the subgenus *Acrodisca*, from which the present species is distinguished in having elongate and not spiculose front tibiae.

EXOPROSOPA (EXOPROSOPA) ATRINASIS, Speis (1910).

A species of proportionately greater size, very distinct on account of its large wings, which are infuscated along the fore border, and have the cross-vein edged with fuscous, but not in the shape of rounded spots as in the *balioptera*-group. In the key of the species ('Ann. S. Afr. Mus.,' xviii, p. 151) the present species should follow No. 39, being distinct from *luteicosta* owing to the more developed wing pattern.

1 ♀ from Pemba, N. Rhodesia (Father Cassett), and another female from Otjiverongo, S.W. Protectorate, February, 1921 (K. H. Barnard).

The species is known from East Africa and Abyssinia, but was also found in Nyassaland; it is pre-eminently a centro-oriental form.

Additions and Corrections to Monograph of South African Bombyllide (Vol. XVIII, Pt. I, pp. 1—180).

- P. 4, l. 37, and p. 178, l. 34, read Pseudoamictus instead of Pseudoxmictus and Pseudomictus.
 - P. 5, l. 12, and p. 179, l. 6, read Tomomyza instead of Tomomyra.
 - P. 9, after Bombylius bombiformis add spec. nov.
 - P. 52, after Anastoechus macrophthalmus add spec. nov.
 - P. 69, l. 19, and p. 176, l. 17, read comata instead of carnata.
 - P. 78, after Corsomyza anceps add spec. nov.
 - P. 88, after Gonarthrus add gen. nov.
 - P. 99, after Geron barbatus add spec. nov.
 - P. 105, after Toxophora punctipennis add spec. nov.
 - P. 130, after Oestranthrax delete (1912) and add gen. nov.
 - P. 134, after Thyridanthrax transiens add spec. nov.
 - P. 136, after Thyridanthrax ternarius add spec. nov.
 - P. 139, after Metapenta add sub. gen. nov.

- P. 149, after Pterobates add sub. gen. nov.
- P. 155, after Exoprosopa infumata add spec. nov.
- P. 159, after Exoprosopa perpulchra add spec. nov.
- P. 160, after Exoprosopa pediformis add spec. nov.

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